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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,206	03/10/2004	Ju-Yeon Lee	0465-1159P	2419
2292	7590	11/16/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			ALI, MOHAMMAD M	
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,206

Applicant(s)

LEE, JU-YEON

Examiner

Mohammad Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “gause” for claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 6-9, 11, 13,-14, 16-17, 19 -24, 26-29 rejected under 35

U.S.C. 102(b) as being anticipated by Santilli et al., (5,655,374). Santilli et al., disclose a surgical suit with a wearable cooler comprising a thermoelectric module 78 providable on clothes/suit 10 or (on clothes of a user) for absorbing and discharging heat according to an electric current; at least one first heat sink 84 provided at a first side of the thermoelectric module 78; at least one second heat sink 80 provided at a second side of the thermoelectric module 78, the second side being opposite of the first side; and at least one fan 90 provided at the first side of the thermoelectric module 78 for blowing air to the at least one first heat sink, wherein the at least one fan is placed directly above the corresponding at least first heat sink 84; a second fan 76 provided the second side of the thermoelectric module 78 for blowing air to the second heat sink 80; and external case having at least one air inlet66, and at least one air outlet70, and surrounding the at least first heat sink 84 and the at least one first fan 90, contact guard (the fans 90, 76 supports), a projection part/vertical wall 74, heat sinks cavity portions (where the fans 90 and 76 are reside located), a electric control switch 136 (controlling fan, and air-conditioning). See Fig.1-4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli et al. Santilli et al., disclose the invention substantially as claimed as stated above. However Santilli et al., do not disclose location of heat sink outside of the clothes. Location of the heat sink either in side the clothe or outside the cloth is a mere design choice and there is no criticality or unexpected result for it.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli et al., in view of Bell et al. (20030029173). Santilli et al., disclose the invention substantially as claimed as stated above. However, Santilli et al., do not disclose adjustable air outlet. Bell et al., teach the use of adjustable louver 121 in a thermoelectric cooler for the purpose of controlling the conditioned air according the user need. See Fig.1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the surgical suit of Santilli et al.,

in view of Bell et al., such that an adjustable louver could be provided in order to control the direction of air flow as per need of a user..

Claims 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli et al., in view of Feher (4,777,802). Santilli et al., disclose the invention substantially as claimed as stated above. However, Santilli et al., do not disclose a centrifugal fan and a fan directly below the second heat sink. Feher teaches the use of centrifugal 47 which is directly below a second heat exchanging surface 70 with fins/heat sink 78 in a Peltier heat exchanging system for the purpose of exchanging heat and directing the air over the heat sink. See Fig. 16. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the surgical suit of Santilli et al., in view of Feher such that a centrifugal fan disposed directly above the second heat sink could be provided in order to exchanging heat and directing air over the second heat sink.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli et al., in view of Balkind et al., RU 2122658 C1. Santilli et al., disclose the invention substantially as claimed as stated above. However, Santilli et al., do not disclose a gauze. Balkind et al., teach the use of gauze which is directly below a second heat exchanging surface 70 with fins/heat sink in a thermoelectric heat exchanging system for the purpose of observing pressure of air exchanging heat and directing the air over the heat sink. See translated abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the surgical

suit of Santilli et al., in view of Balkind et al., such that a gauze could be provided in order to observe the pressure of air flow exchanging heat.

Response to Arguments


Applicant's arguments, see remarks pages 9-13, filed 10/17/05, with respect to the rejection(s) of claim(s) 1-20 under USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new prior arts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4806. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melba Bumgarner can be reached on (571) 272-4709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mohammad M. Ali
November 13, 2005